CITC 1300 *(formerly CIS 1170 Web Application Development)*  
Beginning HTML & CSS  
3 Credits  4 Class Hours

**Course Description:**  
A beginning course in HTML that provides instruction in creating Web pages. Students learn to write HTML code. Topics include using HTML tags, CSS formatting, and JavaScript.

**Prerequisite(s):** Level 2 placement in Reading and Math  
**Semester Availability:** All

CITC 1301 *(formerly CIS 1030 Programming and Logic Design)*  
Introduction to Programming and Logic  
3 Credits  4 Class Hours

**Course Description:**  
This course is an introduction to the logic necessary for application programming. Topics include logic analysis, techniques of structured design, process flow, and object oriented concepts. A programming language will be used to teach data types, variables, control structures, methods/functions and arrays.

**Prerequisite(s):** Level 2 placement in Reading and Math  
**Semester Availability:** F/S

CITC 1303 *(formerly CIS 2230 Database Concepts)*  
Database Concepts  
3 Credits  4 Class Hours

**Course Description:**  
An introduction to the concepts and syntax of relational database management systems. Topics include relational theory, data modeling, database design concepts with normalization. Creation of tables, queries and other database objects using the tools provided in a relational DBMS.

**Prerequisite(s):** N/A  
**Semester Availability:** S

CITC 1305 *(formerly CIS 1010 Intro to Information Technology)*  
Introduction to Information Technology  
3 Credits  3 Class Hours

**Course Description:**  
Designed to provide the student with a useful and updated introduction to information technology. Topics include computer hardware, the Internet, application software, system software, networking and security, and mobile computing. Note: CITC 1305 is not to be taken by CIT majors and does not qualify as a technical elective for CIT majors.

**Prerequisite(s):** Level 2 placement in English and Reading  
**Semester Availability:** All
CITC 1308 *(formerly CIS 1000 Computer Literacy)*  
Computer Literacy & Applications  
3 Credits  3 Class Hours  

**Course Description:**  
An introduction to microcomputers and application software used in academic and work settings. Topics include file management, word processing, spreadsheets, presentation software, graphic applications, the use of email, hardware and operating systems. The course provides hands-on experience.

**Prerequisite(s):** N/A  
**Semester Availability:** F/S

CITC 1310 *(formerly CIS2400 Intro to .NET Programming)*  
Programming I  
3 Credits  4 Class Hours  

**Course Description:**  
This course introduces the basic concepts of programming, problem solving, programming logic, and design techniques using an object-oriented language. The topics covered include the language syntax, functions, return types, object classes, inheritance, arrays, collections, delegates, events and debugging found in the C# object-oriented programming language.

**Prerequisite(s):** CITC 1314 with a minimum grade of “C”  
**Semester Availability:** F

CITC 1311 *(formerly CIS 2420 Net Windows-Based Client Development)*  
Programming II  
3 Credits  4 Class Hours  

**Course Description:**  
A continuation of CITC 1310 Programming I. This course introduces the student to object oriented programming. Topics include class creation, methods, events, inheritance, objects, interfacing with a database and error handling.

**Prerequisite(s):** CITC 1310 and CITC 2340 with minimum grade of “C”  
**Semester Availability:** S

CITC 1314 *(formerly CIS 2270 Java Application Development)*  
Java Programming I  
3 Credits  4 Class Hours  

**Course Description:**  
This course will cover the fundamental concepts of object-oriented programming using Java, including objects, classes, constructors, methods, and instance variables. Students will understand and implement topics such as user-designed classes, arrays and array processing, graphical user interfaces, event and error handling and applets.

**Prerequisite(s):** CITC 1301 with minimum grade of “C”  
**Semester Availability:** S
CITC 1334 *(formerly CIS 1060 Project Management)*  
**Project Management I**  
3 Credits  4 Class Hours  

**Course Description:**  
This course focuses on a general approach to project management. The content deals with planning, scheduling, organizing and controlling projects. Primary class emphasis is on the project management process and tools. This introductory course includes the major topics of organization strategy and project selection, project definition, project time estimation, project plan development, resource scheduling and leadership. Microsoft Project will be used in applying project management techniques. Teams/case study will reinforce theory and application.  

**Prerequisite(s):** Level 2 placement in English, Reading, and Math  
**Semester Availability:** F/S  

CITC 2312 *(formerly CIS 2430 Net Web-Based Client Development)*  
**.NET Web-Based Client Development**  
3 Credits  4 Class Hours  

**Course Description:**  
An introduction on how to develop Web-Based applications using the Microsoft .NET Framework, ASP and C#. Topics include creating Web applications using Web server controls, event handlers, application state, creating custom Web server controls, and integrating Web applications with back-end databases.  

**Prerequisite(s):** CITC 1310 with minimum grade of “C”  
**Semester Availability:** S  

CITC 2333 *(formerly CIS 1070 Professional Workplace Skills)*  
**Professional Workplace Skills**  
3 Credits  4 Class Hours  

**Course Description:**  
Introduces the student to the universal success skills requisite for career success. Topics include verbal communication, written communication, problem solving and decision making, teamwork and building, and professionalism.  

**Prerequisite(s):** Level 2 placement in English and Reading  
**Semester Availability:** F/S  

CITC 2334 *(formerly CIS 2060 Advanced Project Management)*  
**Project Management II**  
3 Credits  4 Class Hours  

**Course Description:**  
An overview of the theoretical and practical aspects of managing projects. Topics include project knowledge areas. A project management software program, Microsoft Project, will be used in applying project management techniques. Teams/case study/simulations will reinforce theory and application.  

**Prerequisite(s):** CITC 1334 with minimum grade of “C”  
**Semester Availability:** S
CITC 2340 (formerly CIS 2350 SQL Server)
Advanced Database Concepts & Programming
3 Credits  4 Class Hours

Course Description:
A comprehensive study of SQL using an industry established relational database management system such as Microsoft SQL Server or Oracle RDBMS. Topics will include database design, creation and management, advanced queries, stored procedures and functions, triggers, security awareness, and performance tuning.

Prerequisite(s): CITC 1303 with minimum grade of “C”
Semester Availability: F

CITC 2347 (formerly CIS2180 Dynamic Web Programming)
Web Database Application Development
3 Credits  4 Class Hours

Course Description:
This course develops the skills necessary for applications programmers and database developers to create interactive Web sites. Topics include object-oriented application development, relational table creation and maintenance, data cleansing and validation, data manipulation, data storage and retrieval, Web forms, embedded SQL, optimization, and security.

Prerequisite(s): (CITC 1300 or COM 1000) and CITC 1303, both with minimum grade of “C”
Semester Availability: F

CITC 2365 (New Course Offering)
Big Data
3 Credits  4 Class Hours

Course Description:
This course is designed to give students a tour of the breadth of big data concepts. Students will be exposed to data mining concepts and techniques. Text mining concepts and techniques are also covered. Students will also be exposed to Web mining techniques. Trends in big data are summarized.

Prerequisite(s): CITC 1303 with minimum grade of “C”
Semester Availability: F

CITC 2376 (New Course Offering)
Mobile Application Development
3 Credits  4 Class Hours

Course Description:
A study of mobile computing devices with emphasis on development of mobile applications. Topics include mobile computing hardware and technologies, mobile development environment, application components, user interface design principles and APIs.

Prerequisite(s): CITC 1310 with minimum grade of “C”
Semester Availability: S
CITC 2390 *(formerly CIS 2600 IT Professional Capstone)*  
Capstone Course in Computer Information  
3 Credits  4 Class Hours

Course Description:  
A comprehensive review of concepts taught in the CIT Programming/Systems Analyst concentrations. A case study or project will be used in the application and reinforcement of principles that are the basis of the System Design Life Cycle. Time outside of class for team projects will be required. An exit exam will be administered as a means of assessing concentration outcomes.

Prerequisite(s): CITC 2340, CITC 2347, CITC 1310, CITC 1334 – all CITC courses require a grade of “C” or higher; and SPCH 1010 OR SPCH 1112.  
Semester Availability: S